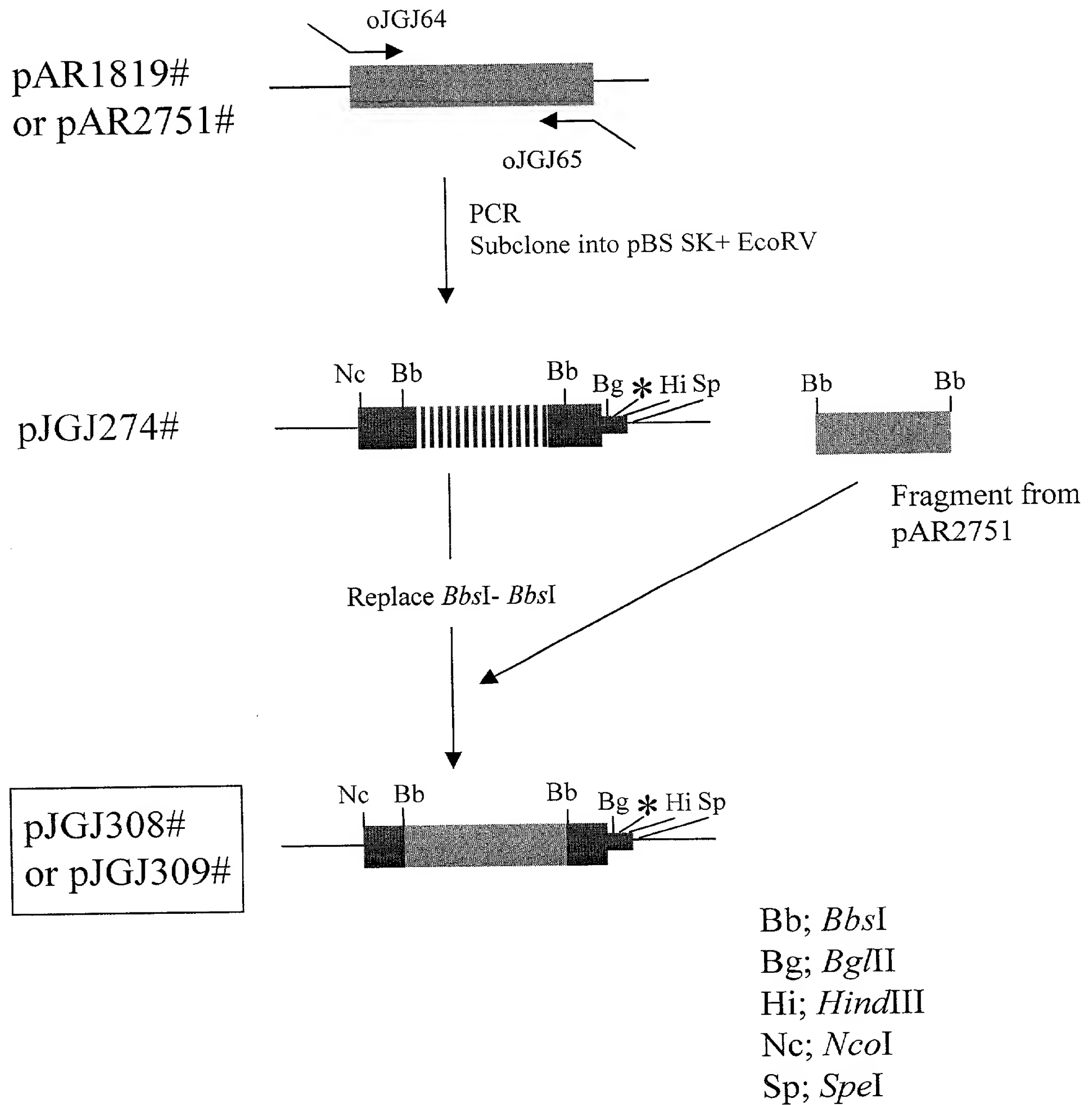


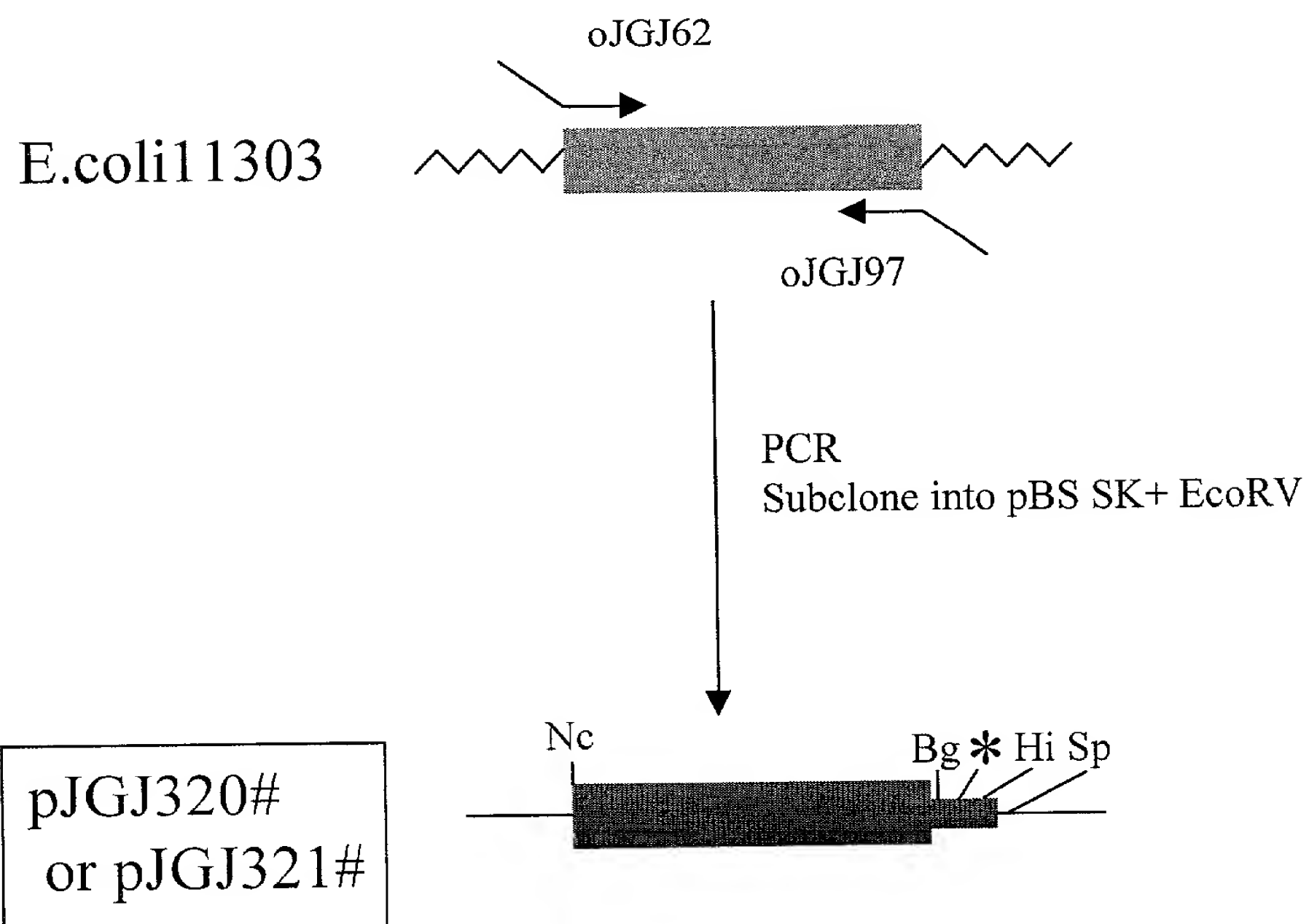
# Figure 1

## T7 DNA polymerase (Gene5)



# Figure 2

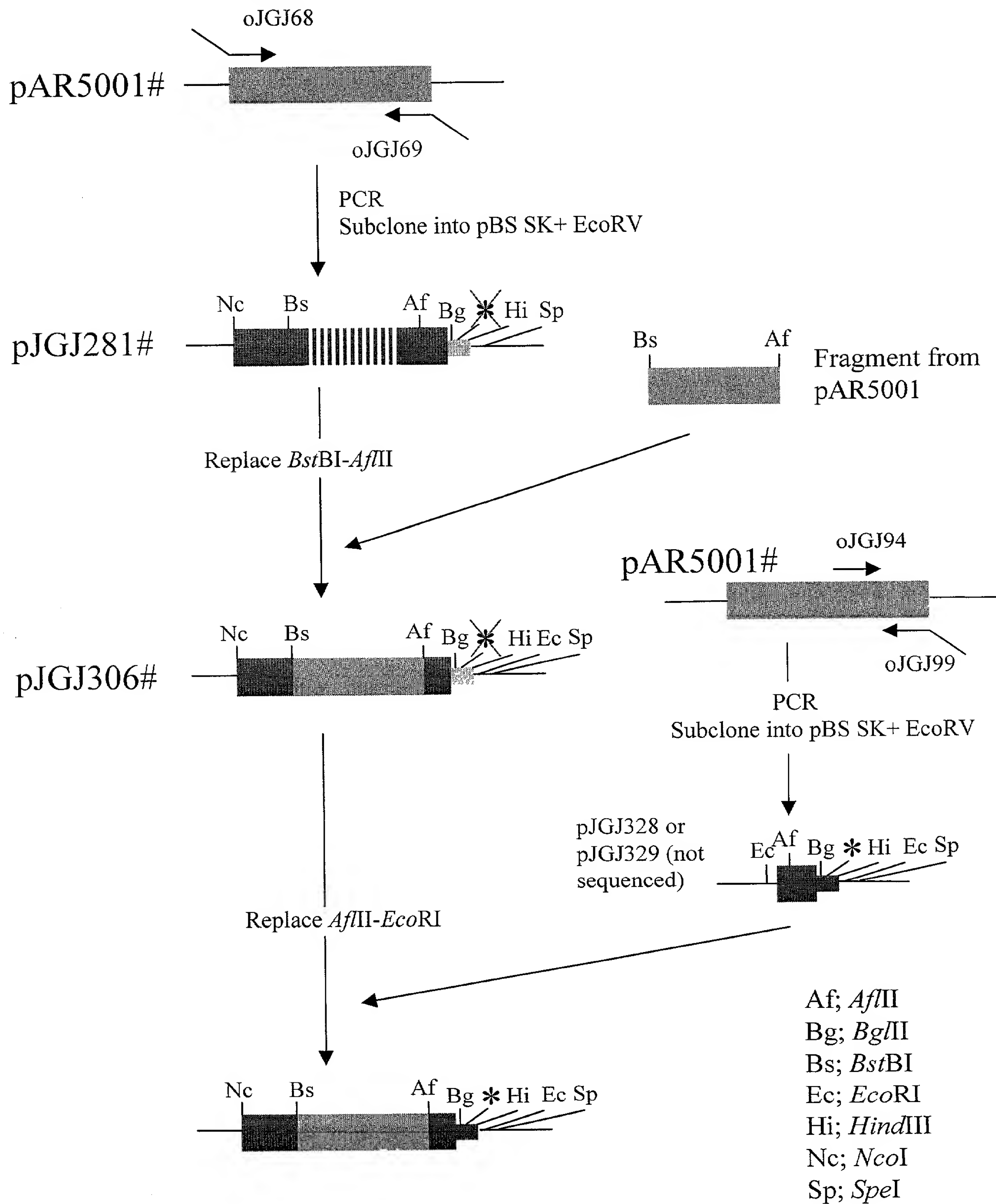
## TrxA gene



Bg; *Bgl*II  
 Hi; *Hind*III  
 Nc; *Nco*I  
 Sp; *Spe*I

# Figure 3

## T7 gene 4A' primase/helicase

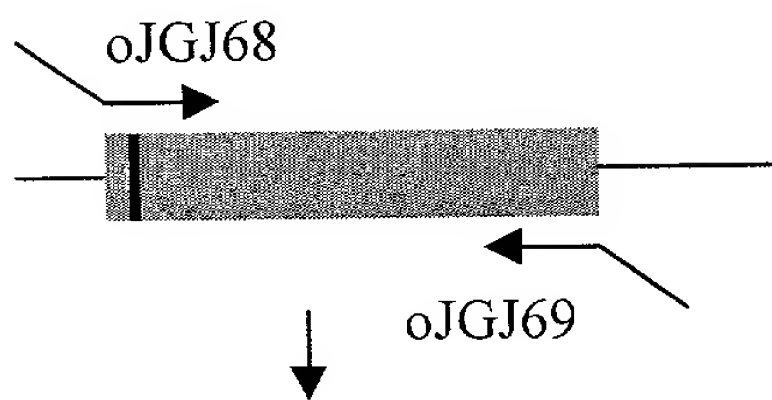


# Figure 4

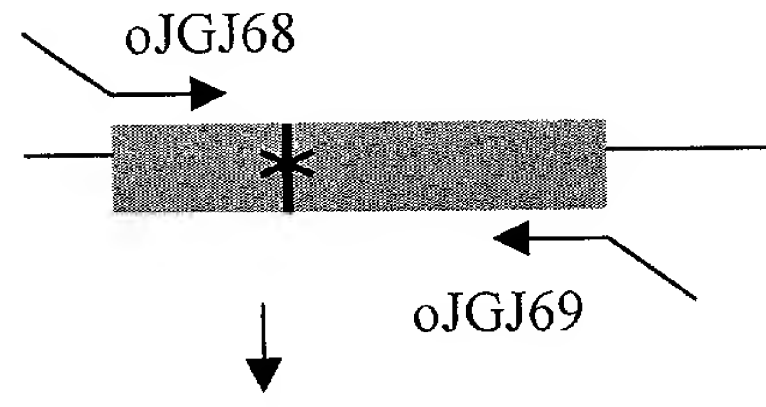
## T7 RNA polymerase genes

pAR3283# (w/nuc loc)

pX19# (A465Tmutation)

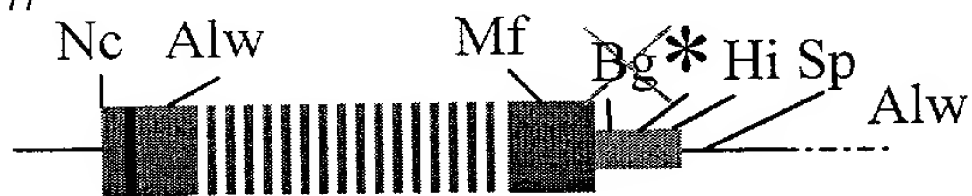


PCR  
Subclone into pBS SK+ EcoRV

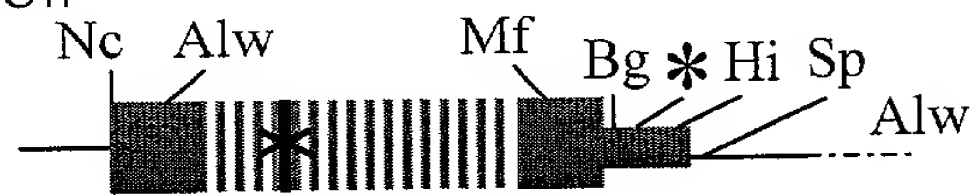


PCR  
Subclone into pBS SK+ EcoRV

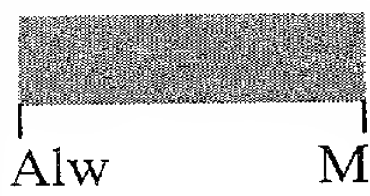
pJGJ291#



pJGJ298#

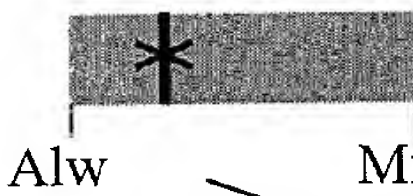


Fragment from  
pAR3283



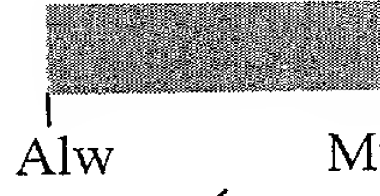
Replace *Alw*NI-*Mfe*I

Fragment from  
pX19

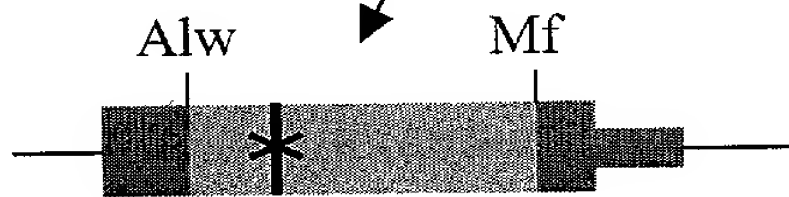


Replace *Alw*NI-*Mfe*I

Fragment from  
pAR3283



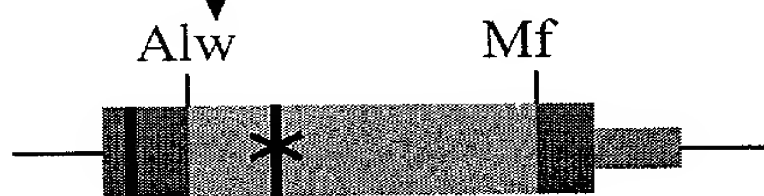
pJGJ316#  
or pJGJ317#



pJGJ314#  
or pJGJ315#



pJGJ312#  
or pJGJ313#



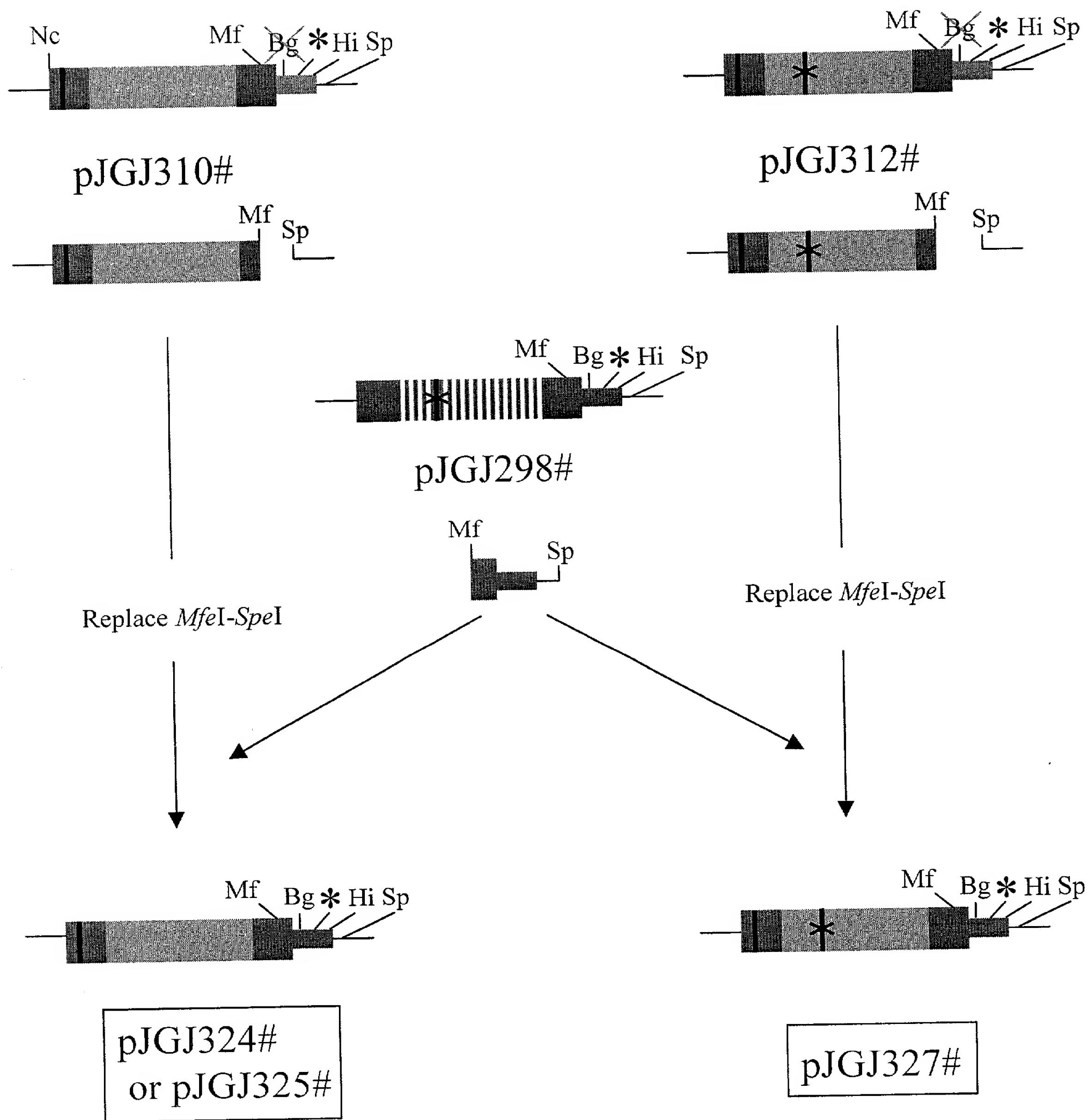
pJGJ310#  
or pJGJ311#



Alw; *Alw*NI    Bg; *Bgl*II  
Hi; *Hind*III    Nc; *Nco*I  
Mf; *Mfe*I       Sp; *Spe*I

[illegible]

## T7 RNA polymerase



Bg; *Bgl*III  
Hi; *Hind*III  
Mf; *Mfe*I  
Nc; *Nco*I  
Sp; *Spe*I

**Figure 6**

Generalized Subcloning into pCAMBIA vectors

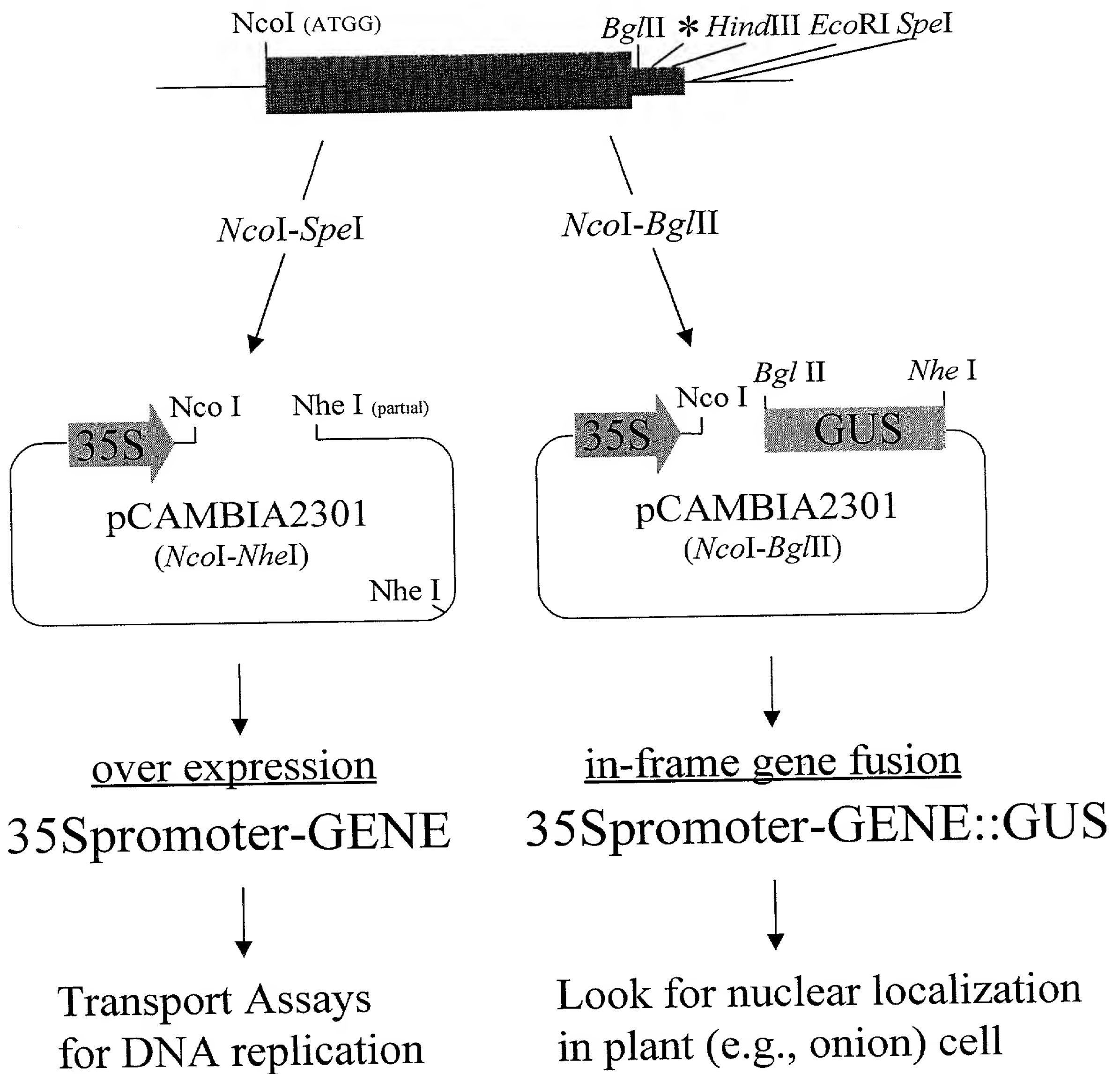


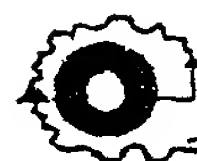
Figure 7 Rolling circle replication of artificial episomes



Artificial episome with T7 promoter and lox site.



Leading strand DNA synthesis by T7 DNA pol, resulting in rolling circle type replication



Lagging strand DNA synthesis by T7 Helicase/primase with T7 DNA polymerase. Resulting in linear concatemers of artificial episome.



CRE



CRE recombinase deconcatenates artificial episomes into separate circular molecules that each can initiate another round of rolling circle replication.